

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-011485

(43)Date of publication of application : 21.01.1994

(51)Int.Cl.

G01N 27/62

(21)Application number : 03-305146

(71)Applicant : KOKURITSU KANKYO  
KENKYUSHO

(22)Date of filing : 20.11.1991

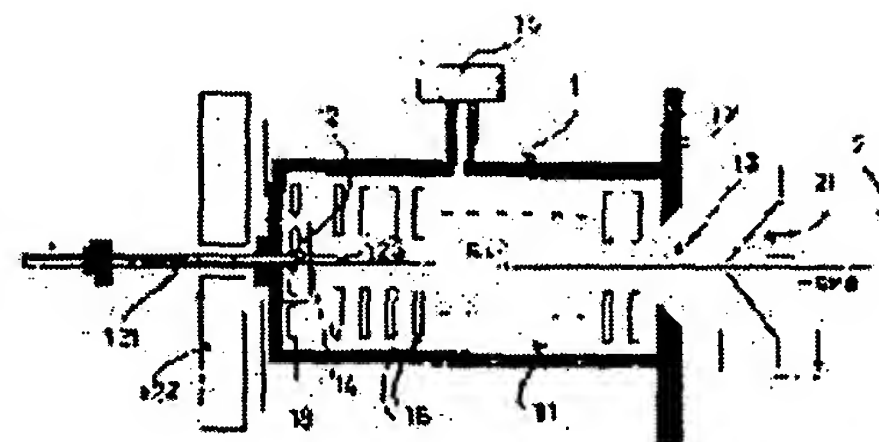
(72)Inventor : FUJII TOSHIHIRO

## (54) METHOD AND DEVICE FOR SENSING OF NEUTRAL ACTIVE SEED

### (57)Abstract:

PURPOSE: To provide sensibility for neutral active seed with a high sensitivity by adding a neutral active seed to one-valent or two-valent metal ions, and sensing these added ions by mass-spectrometry.

CONSTITUTION: To produce radicals from methane gas, a quartz discharge tube 121 and a microwave cavity 122 are installed as a neutral active seed introducing part 12 in the reacting area 11 of a reaction chamber 1, and radicals are introduced to the reacting area 11 from an inlet 123. A Li<sup>+</sup> emitter is installed as a metal ion releasing part 14 and emits Li<sup>+</sup> by doping alumino silicate with lithium salt and heating it. Lithium ions Li<sup>+</sup> from this releasing part 14 are allowed to make addition reaction with the radicals and led as added ions RLi<sup>+</sup> to a mass-spectrometric device 2 from a schemer 21 so as to perform sensing and fixation of the radicals (R). Besides Li, one-valent or two-valent metals such as Ag and Cu and alkali metal such as Na, K, etc.



## LEGAL STATUS

[Date of request for examination] 12.02.1998

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 3236879

[Date of registration] 05.10.2001

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against  
examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office